

REMARKS

STATUS OF THE CLAIMS

Claims 1-3, 6-18, 20-24, 27, and 57-86 were pending. Claims 1-3, 6-18, 20-24, 27, 58, 59, 61 and 72-86 have been withdrawn from consideration pursuant to a Restriction Requirement. Thus, claims 1-3, 6-18, 20-24, 27, and 57-86 are pending (as shown on pages 3-8 of the Response mailed on 10/26/04) and claims 57, 60, and 62-71 are under consideration.

OBJECTIONS WITHDRAWN

Applicants note with appreciation withdrawal of the objection to the specification following removal of the embedded hyperlink.

REJECTIONS WITHDRAWN

Applicants note that the rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) based on Robertson have been withdrawn.

35 U.S.C. § 102(B)

Claims 57, 62-68, 70 and 71 were again rejected as allegedly anticipated under 35 U.S.C. § 102(b) by Aoki et al. (1998) *J. Biol. Chem.* 273(41):26698-26704 (hereinafter "Aoki"). (Office Action, paragraph 3). Aoki was cited for disclosing a complex of RP58 (a DNA binding protein having zinc finger motifs) in a human cell. (Office Action of 7/26/04, paragraph 5). It appears that the Office is assuming that RP58 is binding cellular DNA in the RP58 complex disclosed by Aoki. See Office Action, page 5: "Under this definition the DNA in the chromatin of Aoki et al. is accessible since RP58 binds to it." (emphasis added).

In response, Applicants wish to point out two features of the presently pending claims:

1) They recite a complex between an exogenous molecule and a binding site in cellular chromatin;

2) They recite that the binding site in cellular chromatin comprises a target site.
See pending claim 57.

In light of the first feature of the claims listed above, which is defined on page 11, lines 19-29, Applicants note that Aoki does not disclose any type of complex comprising an exogenous molecule. To the contrary, the complex disclosed by Aoki comprises endogenous RP58. See, for example, Aoki at page 26699, second column, first and second full paragraphs, wherein Aoki states that IMR32 cells were harvested and prepared for immunogold and immunofluorescence microscopy. There is no disclosure of the introduction of an exogenous

molecule into the IMR32 cells prior to the analysis.

With respect to the second feature of the claims listed above, Applicants have defined a target site as a nucleic acid sequence. *See* page 10, lines 18-19 of the specification. In contrast, the micrographs of Aoki do not provide any information on whether RP58 is binding to a nucleic acid sequence. Aoki merely states that “Indirect immunofluorescence of [endogenous] RP58 proteins revealed a punctate nuclear staining pattern . . .” and “. . . over 90% of the gold particles [indicative of RP 58 binding] were found to be distributed in the electron-dense chromatin.” *See* Aoki at page 27603, second column, first (incomplete) paragraph. Thus, although Aoki describes the intranuclear location of RP58 binding sites, he provides absolutely no information on what RP58 is binding to. Indeed, given that the RP58 binding sites are disclosed by Aoki to lie in regions of electron-dense (and therefore highly-condensed) chromatin, one of skill in the art would consider it more likely that RP58 is binding to protein than to nucleic acid.

In conclusion, Aoki fails to disclose binding of any molecule (let alone an exogenous molecule) to a DNA target site in cellular chromatin, as claimed. For these reasons, Aoki fails to disclose each and every aspect of the claimed subject matter; consequently, the rejection is improper and should be withdrawn.

35 U.S.C. § 103

Claim 60 was again rejected as allegedly obvious over Aoki in view of Greisman and Neely. (Office Action, paragraph 4). Claim 65 was again rejected as allegedly obvious over Aoki in view of Greisman and Gross. (Office Action, paragraph 5). In addition, claim 69 was newly rejected over Aoki in view of Greisman. (Office Action, paragraph 6). The primary reference, Aoki, was cited as above under 35 U.S.C. § 102.

For the reasons noted above, Aoki does not teach or suggest complexes as set forth in claims 60, 65 or 69. Applicants note as above that Aoki does not teach or suggest a complex in which an exogenous molecule is bound to a nucleic acid target site in cellular chromatin.


Therefore, there is no combination of Aoki and any of the secondary references that renders pending claims 60, 65 or 69 obvious and withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the foregoing remarks and amendments, Applicants submit that the claims are in condition for allowance.

Respectfully submitted,

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